



Table 1: Comparison of Holotype and Paratypes

	Valve	Length	Height	Semidiameter	Rib number	Riblets	Semidiameter:Height	
		(measurements in millimeters)						(in percent)
Holotype	left	60	60	28	4 ¹	4-5	47	
Holotype	right	60	60	27	4 ¹	4	45	
Paratype 1	right	78	77	39	4 ²	5-7	50	
Paratype 2	left	74	74	35	4 ²	5-7	47	
Paratype 3	left	73	76	35.5	43	5	49	
Paratype 4	right	69	68	33	43	4-5	48	
Paratype 5	left	60	58	26	4 ²	4-5	43	
Paratype 6	left	58	57	25.5	40	4-5	44	

Type locality: The holotype was brought in by the shrimp boats that were at that time working in the vicinity of Cabo Haro, Guaymas, Sonora, Mexico. Lat. 27° 50' N., Long. 40° 55' W. June, 1959. The paratypes were trawled off Cabo Haro, in about 50 fathoms, December 27 and 31, 1959. Collectors: B. Campbell, X. Mendoza, T. Schowalter, and D. Shasky.

The specific name is derived from the combination of two Greek words in order to signify a unique anatomical feature and the habitat of the mollusk. The Greek adjective *hyphalos* means "under the sea"; *pilema* is the Greek noun for "felt". The combination *hyphalopilema* indicates a species with a soft periostracum that resides offshore. As *hyphalopilema* is a neuter noun in apposition, no change in ending can be made.

Discussion

The most distinctive feature that separates this species from any of the other recent eastern Pacific *Anadara* is the soft felt-like covering displayed by the holotype and one paratype, which resembles more the periostracum of a *Noetia* with close-packed, overlapping scales, arranged like thatch; in addition, *A. hyphalopilema* is finely carpeted with hair. This is one of the largest members of the subgenus *Scapharca* that has been described from the Panamic region. One paratype is 78 mm. in length. The largest *Scapharca* is *A. cepoides* (Reeve, 1844) [Olsson (1961) records a specimen with a length of 90 mm.] with which the paratypes were confused, but *A. cepoides* is broader and less inflated (see Table 2) with 32 to 35 smooth ribs

Table 2: Comparison of Species

	Length	Height	Diam.	Rib number	Riblets	Diameter:Length	Height:Length
		(measurements in millimeters)			(in percent)		
<i>Anadara hyphalopilema</i> CAMPBELL, sp. nov.							
Holotype	60	60	55	4 ¹	4-5	92	100
Paratypes (aver.)						94 ¹	100
<i>Arca hopkinsi</i> PILSBRY & OLSSON, 1941							
Type	93	85	78 ²	38	5-7	84	91
<i>Anadara cepoides</i> (REEVE, 1844)							
[in Olsson, 1961]	90	85	77.3	33-34	none	86	94
[in Olsson, 1961]	70	60	46	33-34	none	66	86
S U P T C no. 5332	62	57	48	35	none	77	92
right valve		54					
[in Keen, 1958]	59	53	45	32	none	76	90
Oldroyd coll. no. 1150	44	41	34	34	none	77	93
right valve		38					

¹ based on semidiameter² based on semidiameter of left valve

and olive-brown or olive-green periostracum, and the posterior end is not as obliquely produced. The umbonal areas are more subcentral than those of *A. hyphalopilema* which are located at the anterior third.

The species to which *Anadara hyphalopilema* is closely related is *Arca (Scapharca) hopkinsi* Pilsbry and Olsson, 1941. This species was described from the Canoa formation of the Pliocene from Western Ecuador. Comment was made in the description: "This fine, large species is not closely related to any living or fossil ark known to us from this region." There are several points of difference separating *A. hyphalopilema* from *Arca hopkinsi*. *Anadara hyphalopilema* is smaller and more inflated with a proportionally greater height (see Table 2), and somewhat differently shaped (see Textfigure 1). It also has 41 ribs slightly corrugated concentrically, 43 in two paratypes, compared with 38 radially sculptured ribs in *Arca hopkinsi*. The anterior extremity is not nearly as prominent as that of *Arca hopkinsi*.

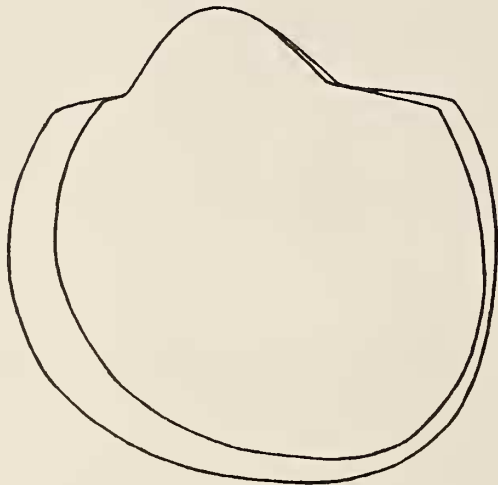


Figure 1: Outer, tracing of *Arca hopkinsi* PILSBRY & OLSSON, 1941 (from their plate); inner, tracing of *Anadara hyphalopilema* CAMPBELL, spec. nov., from paratype 3

So far as known, *Anadara hyphalopilema* has only been collected from the Guaymas area in deep water. A possible explanation why this species has not come to light sooner is that the Mexican fishermen would have no reason to save dead valves coming up in the shrimp nets, and only when a live specimen appears — such as the holotype — would it be salvaged, as a food item.

Acknowledgment

I wish to thank Dr. Myra Keen for her assistance and helpful suggestions, and also Dr. Donald Shasky for the loan of the unmatched valves used as paratypes.

Literature Cited

- Hertlein, Leo George, & A. M. Strong
1943. Eastern Pacific expeditions of the New York Zoological Society. Mollusks from the west coast of Mexico and Central America. Zoologica pt. 2, 28: 149-168, pl. 1.
- Keen, A. Myra.
1958. Sea shells of tropical west America; marine mollusks from Lower California to Colombia. Stanford, Calif., Stanford Univ. Press; xi + 624 pp., illus.
- Lowe, Herbert N.
1935. New marine mollusca from West Mexico, together with a list of shells collected at Punta Penasco, Sonora, Mexico. Trans. San Diego Soc. Nat. Hist. 7 (6): 15-34, pls. 1-4.
- Olsson, Axel A.
1961. Mollusks of the tropical eastern Pacific, particularly from the southern half of the Panamic Pacific faunal province (Panama to Peru). Part I. Panamic-Pacific pelecypoda. Paleont. Res. Inst. Ithaca, New York. pp. 1-574, pls. 1-86.
- Pilsbry, Henry A., & Axel A. Olsson
1941. A Pliocene fauna from Western Ecuador. Proc. Acad. Nat. Sci. Phila. 93: 1-79, pls. 1-19.
- Reinhart, P. W.
1943. Mesozoic and Cenozoic Arcidae from the Pacific slope of North America. Spec. Paper Geol. Soc. Amer., No. 47: i-xi, 1-117, pls. 1-15.
- Rost, Helen
1955. A report on the family Arcidae. Allan Hancock Pacific Exped. 20 (2): 177-249, pls. 11-16, text-figs. 79-95.